

Disclaimer:

This English translation is produced by machine translation and may contain errors. The JPO, the INPIT, and those who drafted this document in the original language are not responsible for the result of the translation.

Notes:

1. Untranslatable words are replaced with asterisks (***).
2. Texts in the figures are not translated and shown as it is.

Translated: 12:15:58 JST 01/24/2009

Dictionary: Last updated 12/10/2008 / Priority:

FULL CONTENTS

[Claim(s)]

[Claim 1] The display which displays the contents of a game, and the final controlling element operated according to the picture displayed on this display, In the game equipment which has the control part which controls the picture and sound which are displayed on said display according to operation of this final controlling element Game equipment which is equipped with a communications control means to control ***** of communication data according to operation of said final controlling element while displaying on said display the communication data ***** (ed) through the communication modem connected to other communication equipment through a public network, and this communication modem, and is characterized by things.

[Claim 2] A charge count means to be said game equipment according to claim 1, and to count the charge prepared beforehand, A time setting means which can be communicated to set up the time which can be transmitted and received through said communication modem according to the amount of money counted by this charge count means and which can be communicated, Game equipment which is equipped with a fee collection control means to subtract the balance counted by said charge count means until the time which was set up by this time setting means that can be communicated, and which can be communicated passed, and to collect a use charge, and is characterized by things.

[Claim 3] It is game equipment which is said game equipment according to claim 2, and is characterized by said charge count means being an injection coin count means to count the supplied number of coin.

[Claim 4] It is game equipment which is said game equipment according to claim 2, and is characterized by said charge count means being a charge data reading means to read the charge data beforehand memorized by the storage.

[Claim 5] It is game equipment which is said game equipment according to claim 4, and is

characterized by said storage being the prepaid card with which the charge data paid beforehand was memorized.

[Claim 6] Game equipment which is equipped with a mode specification means to be said game equipment according to claim 1, and to specify either game mode or communication mode, and is characterized by things.

[Claim 7] It is game equipment which is said game equipment according to claim 6, and said communications control means is equipped with a control means to download arbitrary Game-pro grams from other communication equipment when game mode is specified by said mode specification means, and is characterized by things.

[Claim 8] It is game equipment characterized by being said game equipment according to claim 6, and said fee collection control means subtracting the balance which remained in said communication mode when game mode was specified by said mode specification means after said end of communication mode according to the number of times of use in said game mode.

[Claim 9] It is game equipment characterized by being said game equipment according to claim 1, and reporting that before progress when the time which was set up beforehand, and which can be communicated passes and an additional charge are required for said fee collection control means.

[Claim 10] It is game equipment characterized by being said game equipment according to claim 9, and said fee collection control means directing communication discontinuation for said communications control means when an additional charge is not added by said charge count means after the time which was set up beforehand, and which can be communicated passes.

[Claim 11] A memory means to memorize the address of the communication place connected when communication was interrupted after the time which is said game equipment according to claim 9, and was set up beforehand, and which can be communicated passed, Game equipment which is equipped with a control means to connect with the address of the communication place memorized by said memory means when an additional charge is added by said charge count means in predetermined time after communication was interrupted, and is characterized by things.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the game equipment which applied to game equipment especially other communication equipment and whose communication were enabled through the public network.

[0002]

[Description of the Prior Art] For example, the video game set up beforehand is displayed on a display, and the game equipment installed in a game center etc. can start a game, if the coin of the predetermined amount of money is thrown into a coin slot. By operating a joystick and an operating button, the Game-pro gram memorized by ROM beforehand included in equipment is started, and it consists of this kind of game equipment so that a specific game may be started. Therefore, after a customer sees the demonstration picture displayed on the display and checks the contents of a game, he will choose and play game equipment.

[0003] On the other hand in the personal computer which consists of CPU, a memory, a display, a keyboard, etc., the information on all fields can be seen by accessing the Internet through a communication modem.

[0004]

[Problem to be solved by the invention] Although [however,] it consists of CPU, a memory, a display, and a final controlling element like the above-mentioned personal computer with conventional game equipment It was difficult to be able to communicate with neither other communication equipment nor a terminal unit through the Internet, but to only perform the Game-pro gram only memorized by ROM, and to deal with computerization or diversification of a game.

[0005] Furthermore, if the coin of the amount of money decided beforehand is thrown in, it consists of game equipment so that a game can be started, but if computerization by the Internet etc. progresses, it is necessary to ask a customer for the amount of money according to the communication time which communicated. Therefore, in performing communication to the Internet using game equipment, it not only connects a public network, but it becomes important to collect a use charge.

[0006] However, with conventional game equipment, it aims at only performing a video game, and since it does not assume performing communication with other communication equipment, when game equipment is used as communication equipment, the following problems can be considered. for example, [the method which notifies the time used for the salesclerk of the game center, and pays the charge according to utility time] It is necessary to supervise about [that it is necessary to measure correctly the time when the salesclerk communicated], and whether it was being communicated whether the customer was playing the game, and there is a problem that a salesclerk's burden increases.

[0007] Moreover, when a customer decides communicative utility time to be 1 hour beforehand and considers the charge as prepayment, when actual utility time turns into less than 1 hour or 1 hours or more, it is necessary to collect return of a charge, or a charge in addition, and there is a problem that adjustment of a charge takes time and effort. Moreover, with conventional game equipment, although the composition of hardware is the almost same composition, since the Game-pro grams memorized by ROM included in equipment differ, only the Game-pro

gram concerned is performed.

[0008] Therefore, although the customer of the waiting for turn is standing in a line and waiting, when nobody is at unpopular game equipment, the number of customers changes to popular game equipment with kinds of game equipment installed in the **** and the game center, and there is a problem that variation arises in sale proceeds in it. Then, this invention aims at offering the game equipment which solved the above-mentioned technical problem.

[0009]

[Means for solving problem] In order to solve the above-mentioned technical problem, this invention has the following features. The display on which invention given [above-mentioned] in Claim 1 displays the contents of a game, In the game equipment which has the final controlling element operated according to the picture displayed on this display, and the control part which controls the picture and sound which are displayed on said display according to operation of this final controlling element While displaying on said display the communication data ***** (ed) through the communication modem connected to other communication equipment through a public network, and this communication modem, it has a communications control means to control ***** of communication data according to operation of said final controlling element, and is characterized by things.

[0010] Therefore, while displaying on a display the communication data ***** (ed) through a communication modem according to invention according to claim 1 Since ***** of communication data is controlled according to operation of a final controlling element, it becomes possible to be able to communicate with other communication equipment, for example, to display the information from the outside on a display, and can respond to computerization. Moreover, since game software can be taken in from the exterior by data communications, various games can be enjoyed by one set of a game machine.

[0011] Moreover, a charge count means for invention given [above-mentioned] in Claim 2 to be said game equipment according to claim 1, and to count the charge prepared beforehand, A time setting means which can be communicated to set up the time which can be transmitted and received through said communication modem according to the amount of money counted by this charge count means and which can be communicated, It has a fee collection control means to subtract the balance counted by said charge count means, and to collect a use charge, and is characterized by things until the time which was set up by this time setting means that can be communicated and which can be communicated passes.

[0012] Therefore, according to invention according to claim 2, the time which can be transmitted and received through a communication modem according to the amount of money counted by the charge count means and which can be communicated is set up. Since the balance counted by the charge count means is subtracted and a use charge is collected until the set-up time which can be communicated passes, the charge according to the utility time for

which the customer used communication can be collected automatically, and the labor for collecting a charge can be lightened.

[0013] Moreover, invention given [above-mentioned] in Claim 3 is said game equipment according to claim 2, and said charge count means is characterized by being an injection coin count means to count the supplied number of coin. Therefore, according to invention according to claim 3, the amount of money which counted the supplied number of coin and the customer paid in can be computed, and the time which can be communicated can be set up based on this amount of money for payment.

[0014] Moreover, invention given [above-mentioned] in Claim 4 is said game equipment according to claim 2, and said charge count means is characterized by being a charge data reading means to read the charge data beforehand memorized by the storage. Therefore, in order to read the charge data beforehand memorized by the storage according to invention according to claim 4, for example, since the charge data memorized by the card-like storage or the disk-like storage can liquidate a communicative use charge, it is convenient.

[0015] Moreover, invention given [above-mentioned] in Claim 5 is said game equipment according to claim 4, and said storage is characterized by being the prepaid card with which the charge data paid beforehand was memorized. Therefore, according to invention according to claim 5, since a use charge can be liquidated using the prepaid card of charge payment in advance, it is convenient.

[0016] Moreover, invention given [above-mentioned] in Claim 6 is said game equipment according to claim 1, is equipped with a mode specification means to specify either game mode or communication mode, and is characterized by things. Therefore, since either game mode or communication mode can be specified according to invention according to claim 6, a customer wishes among a game or communication, while he can choose and he can enjoy himself.

[0017] Moreover, invention given [above-mentioned] in Claim 7 is said game equipment according to claim 6, and when game mode is specified by said mode specification means, said communications control means is equipped with a control means to download arbitrary Game-pro grams from other communication equipment, and is characterized by things. Therefore, since according to invention according to claim 7 arbitrary Game-pro grams can be downloaded from other communication equipment when game mode is specified The game software from a foreign country can also be read and played through about [that games other than the game beforehand registered into the memory can be enjoyed] and the Internet.

[0018] Moreover, invention given [above-mentioned] in Claim 8 is said game equipment according to claim 6, and [said fee collection control means] When game mode is specified by said mode specification means after said end of communication mode, it is characterized by subtracting the balance which remained in said communication mode according to the number

of times of use in said game mode. Therefore, when game mode is specified by a mode specification means after the end of communication mode according to invention according to claim 8, in order to subtract the balance which remained in communication mode according to the number of times of use in game mode, Since a game can be enjoyed with the balance which remained among the amount of money paid in in order to use communication, the adjustment work of a charge is done unnecessary.

[0019] Moreover, invention given [above-mentioned] in Claim 9 is said game equipment according to claim 1, and said fee collection control means is characterized by reporting that an additional charge is required before progress, when the time which was set up beforehand and which can be communicated passes. Therefore, since according to invention according to claim 9 it reports before progress that an additional charge is required when the time which was set up beforehand and which can be communicated passes or, even if the time which can be communicated passes, it can prevent forgetting the payment of an additional charge and it can be continuously communicated beyond the original set period.

[0020] Moreover, invention given [above-mentioned] in Claim 10 is said game equipment according to claim 9, and [said fee collection control means] When an additional charge is not added by said charge count means after the time which was set up beforehand and which can be communicated passes, it is characterized by directing communication discontinuation for said communications control means.

[0021] Therefore, since according to invention according to claim 10 communication discontinuation is directed for a communications control means when an additional charge is not added by a charge count means after the time which was set up beforehand and which can be communicated passes, it can prevent accrued [of the charge after the time which can be communicated passes]. Moreover, a memory means to memorize the address of the communication place connected when communication was interrupted after the time which invention given [above-mentioned] in Claim 11 is said game equipment according to claim 9, and was set up beforehand, and which can be communicated passed, When an additional charge is added by said charge count means in predetermined time after communication was interrupted, it has a control means to connect with the address of the communication place memorized by said memory means, and is characterized by things.

[0022] Therefore, after the time which was set up beforehand and which can be communicated passes according to invention according to claim 11, In order to connect with the address of the communication place memorized by the memory means when an additional charge is added by a charge count means in predetermined time after memorizing the address of the communication place connected when communication was interrupted and interrupting communication, Even if a charge is insufficient and communication is interrupted, it connects with the interrupted automatic communication place, and troublesome operation of looking for

a communication place can be made unnecessary.

[0023]

[Mode for carrying out the invention] The form of operation of this invention is hereafter explained with Drawings. Drawing 1 is the perspective view of one work example of the game equipment which becomes this invention. Moreover, drawing 2 is the front view of game equipment. As shown in drawing 1 and drawing 2, game equipment 11 is installed in the game center etc., and the communication mode which can communicate through game mode and the Internet so that it may mention later is chosen. And CRT display 13 in color is attached to the front of a case 12, and, as for game equipment 11, the final controlling element 14 ahead projected under CRT display 13 is formed. Before a customer operates CRT display 13, the menu picture for choosing game mode and communication mode on a screen is usually displayed.

[0024] The final controlling element 19 for one persons which consists of a joystick 15, operating buttons 16-18, etc., and the final controlling element 24 for two persons which consists of a joystick 20, operating buttons 21-23, etc. are arranged in this final controlling element 14. Furthermore, on the final controlling element 14, the operating button 25 for an one-person play for choosing an one-person play or a two-person play and the operating button 26 for a two-person play are arranged.

[0025] In addition, when the communication mode mentioned later is chosen, the joystick 15 can move cursor like the mouse used with a personal computer. Moreover, operating buttons 16 and 17 function as what is equivalent to the left switch of a mouse, and a right switch, respectively. Moreover, the coin slot 27 is formed under the final controlling element 14. For example, when performing a game, in an one-person play, the coin of 100 yen is thrown into the one-piece coin slot 27, and, in a two-person play, the coin of 100 yen is thrown into the two-piece coin slot 27. In addition, the detection switch is formed in the inside of the coin slot 27 as a detection means to detect the thrown-in coin, and whenever coin is thrown into the coin slot 27, the detection signal is outputted.

[0026] Drawing 3 is a block which shows the composition of a control system of game equipment 11. As shown in drawing 3, game equipment 11 has the control circuit 30 which controls each part of the above. This control circuit 30 has the game control part 30A which starts the predetermined control program for games when game mode is chosen so that it may mention later, and the communications control part 30B which starts the predetermined control program for communication when communications control mode is chosen.

[0027] In the control circuit 30, besides above-mentioned CRT display 13, the joystick 15 for one persons, operating buttons 16-18 and the joystick 20 for two persons, an operating button 21 - the operating button 26 for the 25 or 2 operating button play for a 23 or 1-person play The injection coin counter 32 which counts the detection signal outputted from the coin injection

switch 31 which detects that coin was thrown in, and the coin injection switch 31 is connected to the coin slot 27.

[0028] Furthermore, the memory 33, the speaker 34, and the communication modem 35 with which each Game-pro gram and communication control program in one-person play mode and two-person play mode, the charge operation processing program, etc. were memorized are connected to the control circuit 30. In addition, the public network 36 mentioned later is connected to the communication modem 35, and it can communicate now with external communication equipment or a computer.

[0029] Drawing 4 is the key map showing connection between game equipment 11 and the Internet. Two or more game equipment 111-11n installed in the game center etc. as shown in drawing 4 They are the communication modem 35 and 361-36n of public networks, respectively. It minds and connects with a provider's server 37. And 111-11n of each game equipment The Internet 38 is accessed through a server 37, the Internet 38 is minded, and they are 391-39n of other communication equipment. It connects. 391-39n of other communication equipment The computer by which the homepage of each game software company was registered if carried out, There is a computer by which the homepage of domestic and a foreign game software company was registered through the provider of domestic and an overseas, or a computer by which homepages other than game relations were registered.

[0030] therefore, 111-11n of each game equipment The Internet 38 is minded and they are 391-39n of other communication equipment. While being able to see the information in the world by communicating, the program of arbitrary game software can also be chosen and downloaded from the homepage of a foreign game software company. Drawing 5 is the key map showing connection at game equipment 11 and a host computer.

[0031] Two or more game equipment 111-11n installed in the game center etc. as shown in drawing 5 They are the communication modem 35 and 361-36n of public networks, respectively. It minds and connects with the host computer 40. 111-11n of each game equipment While being able to read the variety of information registered into the host computer 40, the program of the game software registered into the host computer 40 can also be chosen and downloaded.

[0032] Moreover, host computers 40 are each game equipment 111-11n installed in two or more places. Since it connects, it is 111-11n of each game equipment. Game image data etc. can be mutually transmitted and received through a host computer 40. For example, game equipment 111 installed in Tokyo 11n of game equipment installed in Osaka through the host computer 40 A versus fighting game, a car race game, etc. can be enjoyed simultaneously mutually, communicating.

[0033] Next, the flow chart of drawing 6 is combined, referred to and explained about the

control processing which the control circuit 30 of the game equipment which becomes the above-mentioned composition performs. The control circuit 30 confirms whether the coin injection switch 31 was set to ON in Step S11 (the following "step" is omitted) among drawing 6 . If a customer throws coin into the coin slot 27, the coin injection switch 31 will be set to ON, and will output the detection signal.

[0034] When the coin injection switch 31 is set to ON, it progresses to S12, and the number of injection coin counted with the injection coin counter 32 is read, and a memory 33 is made to memorize the paid-in amount of money in S11. In the following S13, as shown in drawing 1 and drawing 2 , a mode menu is displayed on the screen of CRT display 13. The mode which the icon in "game mode" and the icon in "communication mode" are displayed simultaneously, chose one of icons by operation of a joystick 15, and was chosen by operation of the operating button 16 is specified as this mode menu. Moreover, the amount of money for an injection corresponding to the number of injection coin counted with the injection coin counter 32 (it is 1000 yen when for example, ten 100 yen coins are thrown in) is displayed on a mode menu.

[0035] In S14, it is confirmed whether "communication mode" was specified. In these S14, when "communication mode" is not specified, it is confirmed whether shifted to S15 and "game mode" was specified. And processing of S14 and S15 is repeated until either "communication mode" or "game mode" is specified.

[0036] Here, when "game mode" is specified, for example by operation of a joystick 15 and an operating button 16, it progresses to S16 from S15, the ready-made Game-pro gram registered into the memory 33 is read, and a video game is started. And if it becomes game OBA by S17, this "game mode" will be ended and it will return to the above S11.

[0037] moreover, in the above S14 when "communication mode" is specified It progresses to S18, the time of the Internet 38 according to the number of injection coin (amount of money for payment) counted with the above-mentioned injection coin counter 32 which can be communication used is calculated, and the operation result is displayed on the screen of CRT display 13. Thereby, the customer can check the time to the Internet 38 which can be communicated.

[0038] In addition, the amount of money which added together the charge according to the time connected to the usage fee of the public network 36 and a provider's server 37 other than the usage fee of game equipment 11, for example as the fee collection calculation method in the case of performing communication to the Internet 38 using game equipment 11 serves as a usage fee per unit time. And the time which can be communication used is computed by breaking the amount of money for payment by the number of injection coin by the usage fee per this unit time.

[0039] In the following S19, it connects with the Internet 38 or a host computer 40 through the above-mentioned communication modem 35 and the public network 36, and the

communication with other communication equipment or a computer or communication with a host computer 40 is started through the Internet 38. Then, in S20, the communication utility time after starting communication is clocked. And it progresses to S21 and the communication utility time clocked by S20 confirms whether it reached 1 minute before the time which can be used. In these S21, when the clocked communication utility time has not reached 1 minute before the time which can be used, it returns to the above S19 and communications processing is continued. However, in S21, since there is little remainder of the charge which progressed to S22 and was paid in at the beginning when the clocked communication utility time reaches 1 minute before the time which can be used, the message "an additional coin injection" is displayed on the screen of CRT display 13, for example.

[0040] In the following S23, it is confirmed whether the coin injection switch 31 was set to ON. And since there was additional payment when the coin injection switch 31 was set to ON, it progresses to S24, and the number of injection coin counted with the injection coin counter 32 is read, and a memory 33 is made to memorize the paid-in amount of money in S23. Then, in S25, the time with the Internet 38 or the host computer 40 according to the number of additional injection coin (amount of money for payment) counted with the injection coin counter 32 which can be communication used is calculated, and the operation result is displayed on the screen of CRT display 13. Then, while returning to S19 and continuing communications processing, processing after S19 is performed.

[0041] Moreover, when the coin injection switch 31 continues being OFF in the above S23, it progresses to S26 and it is confirmed whether the time according to the original payment amount of money which can be used passed. When the time which can be used has not passed in S26, it returns to the above S23 and processing of S23 and S26 is repeated. Moreover, when the time which can be used passes, a memory 33 is made to memorize the communication place address under present communication in S26. And communications processing is ended by S28. In the following S29, it is confirmed whether the coin injection switch 31 was set to ON. And in S29, since there is no additional payment when the coin injection switch 31 is OFF, it progresses to S30 and it is confirmed whether predetermined time passed.

[0042] In S30, when predetermined time has not passed, it returns to S29 and it is confirmed whether the coin injection switch 31 was set to ON. Thus, when additional coin is thrown in by S29, connection with the communication place of the last which shifted to S31 and was memorized by the memory 33 is made. For this reason, in S32, even if it carries out communication discontinuation by short paid, the communication place and communication which were automatically connected before the stop can be resumed by throwing in additional coin. Then, it progresses to S33, the time with the Internet 38 or the host computer 40 according to the number of additional injection coin (amount of money for payment) counted

with the injection coin counter 32 which can be communication used is calculated, and the operation result is displayed on the screen of CRT display 13. And it returns to the above S19 and processing after S19 is performed again.

[0043] Moreover, in the above S30, when it progresses to S34 and the rental spending according to utility time is deducted from the number of injection coin (amount of money for payment), when predetermined time passes, while additional coin has not been thrown in by it, and there is no balance, it returns to S11 which ended and mentioned this processing above. However, in S34, when there is the balance, the amount of the balance is converted into the number of times of use of a game. Then, it changes to the game mode mentioned above, and shifts to the above S16. Thereby, while being able to enjoy the number of games according to the amount of the balance, the liquidation work of the troublesome balance becomes unnecessary.

[0044] Thus, game equipment 11 can control transmission and reception of communication data according to operation of a final controlling element 14 while displaying on CRT display 13 the communication data ***** (ed) through the communication modem 35. Therefore, 391-39n of communication equipment of others [the control circuit 30 of game equipment 11] It becomes possible to be able to communicate, for example, to display the information from the outside on CRT display 13 display, and can respond to computerization.

[0045] Moreover, the time which can be transmitted and received through the communication modem 35 according to the amount of money counted with the injection coin counter 32 with game equipment 11 as mentioned above and which can be communicated is set up. the balance counted until the set-up time which can be communicated passed is subtracted, and a use charge is collected -- it can do. Therefore, with game equipment 11, the charge according to the utility time for which the customer used communication can be collected automatically, and the labor for collecting a charge can be lightened.

[0046] Drawing 7 is the flow chart of the control processing performed when game mode is specified. The control circuit 30 displays a mode menu on the screen of CRT display 13 by S41 among drawing 7 . the screen top of CRT display 13 -- "an inputted game" -- and -- "-- others -- the icon of download" is displayed in a game. And in S42, when "an inputted game" is specified, game processing of an inputted game is performed by S43. Then, in S44, it is checked whether it is game OBA. In S44, when it is not game OBA, game processing of the above S43 is performed. However, in S44, when it is game OBA, it progresses to S45 and it is checked whether he wishes a re-play.

[0047] in the above S46 -- "-- others -- when download" is specified in a game, it progresses to S47 and communication mode processing is performed. In the following S48, a game list downloadable from the Internet 38 or a host computer 40 is displayed on the screen of CRT display 13. And when arbitrary games are specified out of a game list, S50 HE progress and

the specified Game-pro gram are downloaded, and a memory 33 is made to memorize in S49. In the following S51, a charge is computed from communication time. And it is confirmed whether the charges paid in by S52 are insufficient.

[0048] When the charges paid in by S52 are insufficient, it progresses to S53, for example, the message "an additional coin injection" is displayed on the screen of CRT display 13. In the following S54, it is confirmed whether there was any additional payment. When charges do not run short by the above S52, or when there is additional payment by S54, it progresses to S55 and game processing is performed. However, in S56, when it is game OBA, it progresses to S57 and it is checked whether he wishes a re-play.

[0049] And in wishing a re-play by S57, it returns to the above S55 and performs game processing. However, in S57, when you do not wish a re-play, it progresses to S58. In the following S58, since the customer does not wish the re-play, the downloaded Game-pro gram is eliminated and this processing is ended.

[0050] Thus, by downloading the program of the game which is not registered into the memory 33 of game equipment 11 from the Internet 38 or a host computer 40 Since the game of various kinds can be enjoyed with one piece of game equipment 11, while being able to respond to the diversity of a game rather than the case where a single game is performed like before, it can respond also to a customer's needs. Moreover, a customer's acquisition rate can be raised and increase of sales can be planned rather than installing game equipment popular also as a game center side, and unpopular game equipment.

[0051] Drawing 8 is a perspective view for explaining the modification of this invention. In addition, in drawing 8 , the same mark is given to the same portion as drawing 1 , and the explanation is omitted. As shown in drawing 8 , the card read/write 53 in which a prepaid card 52 is inserted is formed in the center of the final controlling element 14 of game equipment 51. The IC card the magnetic card with which magnetic storage of the charge data was carried out, for example, and charge data were remembered to be as digital data as a prepaid card 52 is used.

[0052] And if a prepaid card 52 is inserted in the loading slot 53a of the card read/write 53 The card read/write 53 reads the charge data memorized by the prepaid card 52, and the control circuit 30 computes the time which can be communication used, and it makes it display it on the screen of CRT display 13. Moreover, after the communication using game equipment 51 is completed and the card read/write 53 writes the balance which subtracted the use charge according to communication utility time from the charge data memorized by the prepaid card 52 in a prepaid card 50, A prepaid card 52 is returned from a loading slot 53a.

[0053] Thus, since a communication use charge can be paid with the charge data which inserts a prepaid card 52 in the card read/write 53 instead of cash, and is memorized by the prepaid card 52 with game equipment 51, it is convenient. For example, in the case where the

communication time in the Internet 38 attains to a long time, since coin injection number of sheets turns into a considerable number, by using a prepaid card 52, the closing operation of coin and the recovery efforts of coin are lost, and not only a customer but the game center side can attain laborsaving.

[0054] Drawing 9 is the flow chart of the control processing which the control circuit 30 of game equipment 51 performs. As shown in drawing 9, the control circuit 30 confirms whether the prepaid card 52 was inserted in the card read/write 53 in S61. When a prepaid card 52 is inserted in the card read/write 53, it progresses to S62, the charge data memorized by the prepaid card 52 is read, and the amount of money (charge data) received by the memory 33 is made to memorize in these S61.

[0055] In the following S63, as shown in drawing 1 and drawing 2, a mode menu is displayed on the screen of CRT display 13. In S64, when it is confirming whether "communication mode" was specified and "communication mode" is not specified, it is confirmed whether shifted to S65 and "game mode" was specified. And processing of S64 and S65 is repeated until either "communication mode" or "game mode" is specified.

[0056] Here, when "game mode" is specified, for example by operation of a joystick 15 and an operating button 16, it progresses to S66 from S65, the Game-pro gram registered into the memory 33 is read, and a video game is started. And if it becomes game OBA by S67, this "game mode" will be ended and it will return to the above S61.

[0057] moreover, in the above S64 when "communication mode" is specified It progresses to S68, the time of the Internet 38 according to the number of injection coin (amount of money for payment) counted with the above-mentioned injection coin counter 32 which can be communication used is calculated, and the operation result is displayed on the screen of CRT display 13. Thereby, the customer can check the time to the Internet 38 which can be communicated.

[0058] In the following S69, the Internet 38 is accessed through the above-mentioned communication modem 35, the public network 36, and a provider's server 37, and external communication equipment or a computer, and communication are started through the Internet 38. Then, in S70, the communication utility time after starting communication is clocked. And it progresses to S71 and the communication utility time clocked by S70 confirms whether it reached 1 minute before the time which can be used. In these S71, when the clocked communication utility time has not reached 1 minute before the time which can be used, it returns to the above S69 and communications processing is continued. When [however,] the clocked communication utility time reaches in S71 1 minute before the time which can be used It progresses to S72, and since there is little remainder of the charge paid in with the prepaid card 52 at the beginning, the message "additional card insertion" is displayed on the screen of CRT display 13, for example.

[0059] [the following S73] if a prepaid card 52 is inserted in the loading slot 53a of the card read/write 53 it progresses to S74, it is tried to read the charge data memorized by the prepaid card 52 by the card read/write 53, and a memory 33 is made to memorize the amount of money paid in with the prepaid card 52 Then, in S75, the time with the Internet 38 or the host computer 40 according to the amount of money paid in with the prepaid card 52 which can be communication used is calculated, and the operation result is displayed on the screen of CRT display 13. Then, while returning to S69 and continuing communications processing, processing after S69 is performed.

[0060] Moreover, when a prepaid card 52 is not inserted in the card read/write 53 by the above S73, it progresses to S76 and it is confirmed whether the time according to the original payment amount of money which can be used passed. When the time which can be used has not passed in S76, it returns to the above S73, insertion of a prepaid card 52 is checked, and processing of S73 and S76 is repeated.

[0061] Moreover, when the time which can be used passes, a memory 33 is made to memorize the communication place address under present communication in S76. And communications processing is ended by S78. In the following S79, it is confirmed whether the prepaid card 52 was inserted in the loading slot 53a of the card read/write 53. In S79, when a prepaid card 52 is not inserted, it progresses to S80 and it is confirmed whether the predetermined time set up beforehand passed.

[0062] In S80, when predetermined time has not passed, it returns to S79, a prepaid card 52 is inserted again, and it confirms whether to be *****. And when a prepaid card 52 is inserted in the card read/write 53 by S79, connection with the communication place of the last which shifted to S71 and was memorized by the memory 33 is made. For this reason, in S82, even if it carries out communication discontinuation by short paid, the communication place and communication which were automatically connected before the stop can be resumed by inserting a prepaid card 52 in the card read/write 53. Then, progress to S83 and the time with the Internet 38 or the host computer 40 according to the charge data (amount of money for payment) memorized by the prepaid card 52 inserted in the card read/write 53 which can be communication used is calculated. The operation result is displayed on the screen of CRT display 13. And it returns to the above S71 and processing after S69 is performed again.

[0063] Moreover, in the above S80, while a prepaid card 52 has not been inserted in the card read/write 53 by it, when predetermined time passes, it returns to S61 mentioned above. Thus, [game equipment 51] since a prepaid card 52 can liquidate a charge A possibility that communication with external apparatus will be interrupted by about [that the time and effort which throws in coin is not needed], and the shortage of coin decreases, continuously, a game can be enjoyed or the Internet 38 or the information by communication with a host computer 40 can be seen for a long time.

[0064] In addition, although the case where game equipment 11 and 51 was communicated with the Internet 38 or a host computer 40 was mentioned as an example in the above-mentioned work example It cannot be overemphasized that it can communicate not only with this but with the personal computer installed, for example in ordinary homes and the personal computer installed in the company.

[0065]

[Effect of the Invention] While displaying on a display like **** the communication data ***** (ed) through a communication modem according to Claim 1 of this invention Since ***** of communication data is controlled according to operation of a final controlling element, it becomes possible to be able to communicate with other communication equipment, for example, to display the information from the outside on a display, and can respond to computerization. Moreover, since game software can be taken in from the exterior by data communications, various games can be enjoyed by one set of a game machine. Therefore, since the time of the waiting for turn becomes short and the customer can eliminate a game machine unpopular in the game center side even when it becomes unnecessary to have chosen the game machine and is crowded with the contents of a game, he can raise a customer's rotation efficiency and can raise the sales for every game machine more.

[0066] Moreover, according to invention according to claim 2, the time which can be transmitted and received through a communication modem according to the amount of money counted by the charge count means and which can be communicated is set up. Since the balance counted by the charge count means is subtracted and a use charge is collected until the set-up time which can be communicated passes, the charge according to the utility time for which the customer used communication can be collected automatically, and the labor for collecting a charge can be lightened. Moreover, even when communication becomes long, it can prevent that a use charge serves as accrued, and loss by short paid can be prevented beforehand.

[0067] Moreover, according to invention according to claim 3, the amount of money which counted the supplied number of coin and the customer paid in can be computed, and the time which can be communicated can be set up based on this amount of money for payment. Therefore, since a customer starts communication after checking the time which can be communicated before communicating, he can operate it so that time Oba may not be carried out. Moreover, in order to read the charge data beforehand memorized by the storage according to invention according to claim 4, for example, since the charge data memorized by the card-like storage or the disk-like storage can liquidate a communicative use charge, it is convenient.

[0068] Moreover, according to invention according to claim 5, since a use charge can be liquidated using the prepaid card of charge payment in advance, it is convenient. Since it does

not need the time and effort which the time and effort which throws in much coin is not needed, and collects much coin, either, in communicating especially for a long time, laborsaving can be attained. Moreover, since either game mode or communication mode can be specified according to invention according to claim 6, while a customer wishes among a game or communication by easy operation, it can choose and he can enjoy not only a game but the Internet easily.

[0069] Moreover, since according to invention according to claim 7 arbitrary Game-pro grams can be downloaded from other communication equipment when game mode is specified Various game software from a foreign country can also be read and played through about [that games other than the game beforehand registered into the memory can be enjoyed] and the Internet. Therefore, while being able to respond also to diversification of a game, it is also possible to see various information simply.

[0070] Moreover, when game mode is specified by a mode specification means after the end of communication mode according to invention according to claim 8, in order to subtract the balance which remained in communication mode according to the number of times of use in game mode, Since a game can be enjoyed with the balance which remained among the amount of money paid in in order to use communication, the adjustment work of a charge is done unnecessary. Moreover, since according to invention according to claim 9 it reports before progress that an additional charge is required when the time which was set up beforehand and which can be communicated passes or, even if the time which can be communicated passes, it can prevent forgetting the payment of an additional charge and it can be continuously communicated beyond the original set period.

[0071] Moreover, since according to invention according to claim 10 communication discontinuation is directed for a communications control means when an additional charge is not added by a charge count means after the time which was set up beforehand and which can be communicated passes, it can prevent accrued [of the charge after the time which can be communicated passes]. Moreover, after the time which was set up beforehand and which can be communicated passes according to invention according to claim 11, In order to connect with the address of the communication place memorized by the memory means when an additional charge is added by a charge count means in predetermined time after memorizing the address of the communication place connected when communication was interrupted and interrupting communication, Even if a charge is insufficient and communication is interrupted, it connects with the interrupted automatic communication place, and troublesome operation of looking for a communication place can be made unnecessary.

[Brief Description of the Drawings]

[Drawing 1] It is the perspective view of one work example of the game equipment which becomes this invention.

[Drawing 2] It is the front view of game equipment.

[Drawing 3] It is the block which shows the composition of a control system of game equipment 11.

[Drawing 4] It is the key map showing connection between game equipment 11 and the Internet.

[Drawing 5] It is the key map showing connection at game equipment 11 and a host computer.

[Drawing 6] It is the flow chart of the control processing which the control circuit 30 performs.

[Drawing 7] It is the flow chart of the control processing performed when game mode is specified.

[Drawing 8] It is a perspective view for explaining the modification of this invention.

[Drawing 9] It is the flow chart of the control processing which the control circuit 30 of game equipment 51 performs.

[Explanations of letters or numerals]

11, 51 Game equipment

12 Case

13 CRT Display

15, 20 Joystick

16-18, 21-23 Operating button

19 Final Controlling Element for One Persons

26 Operating Button for Two-Person Play

27 Coin Slot

30 Control Circuit

30A Game control part

30B Communications control part

31 Coin Injection Switch

32 Injection Coin Counter

33 Memory

35 Communication Modem

36 Public Network

37 Server

38 Internet

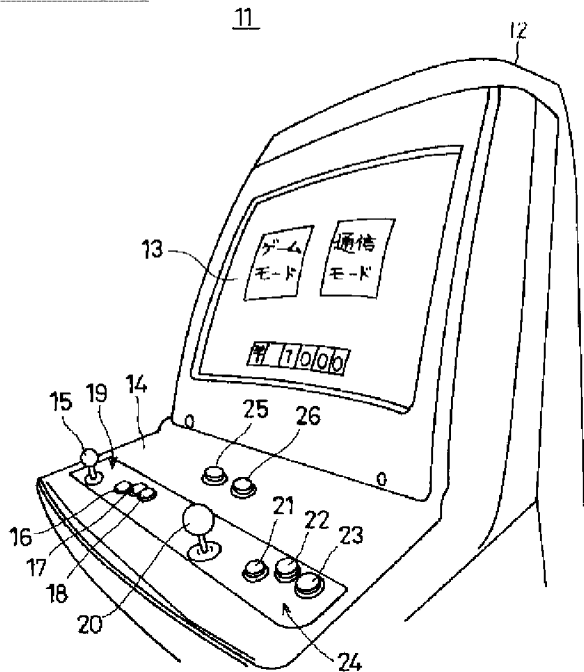
391 -39N Communication Equipment

40 Host Computer

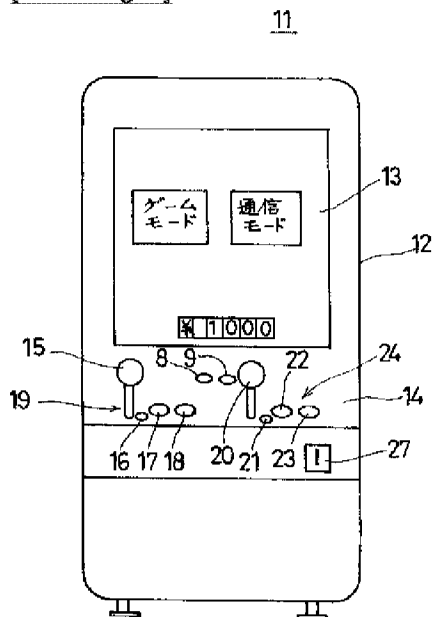
52 Prepaid Card

53 Card Read/write

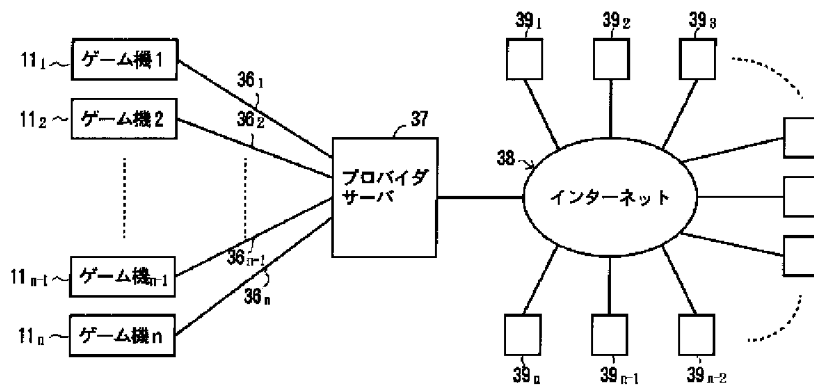
[Drawing 1]



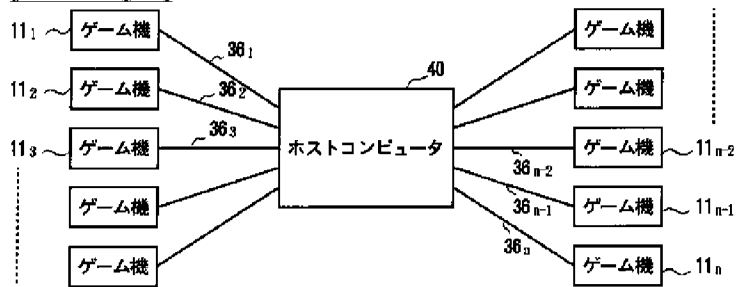
[Drawing 2]



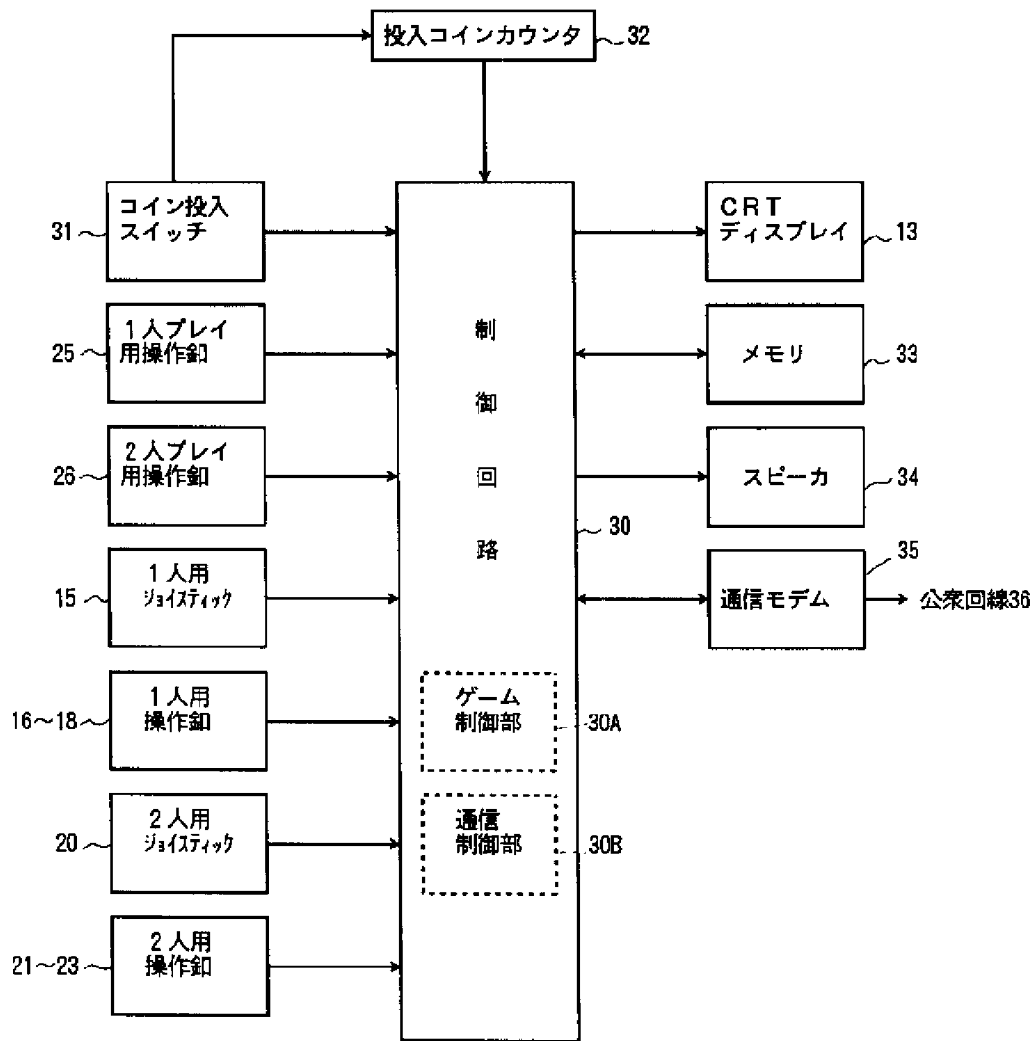
[Drawing 4]



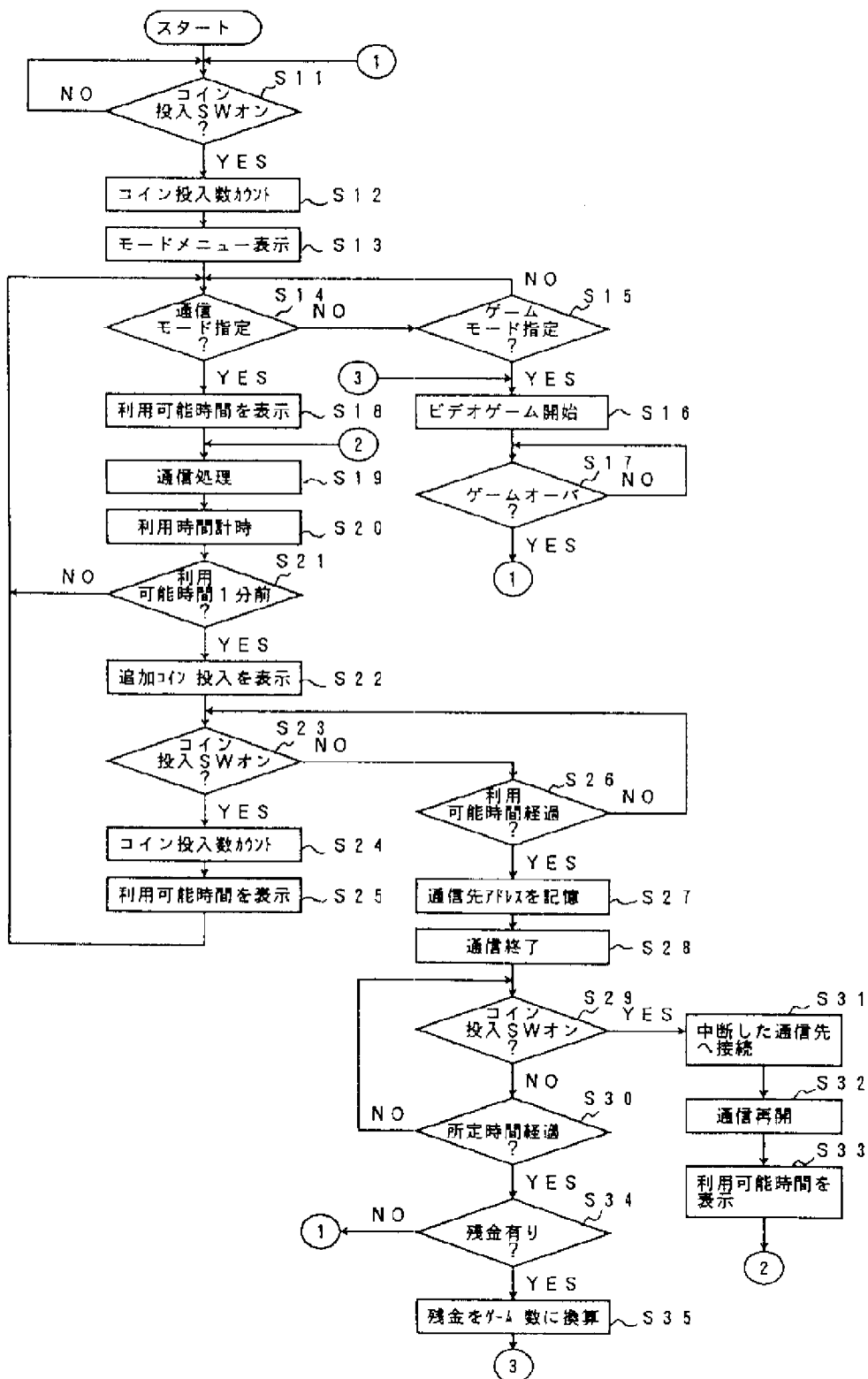
[Drawing 5]



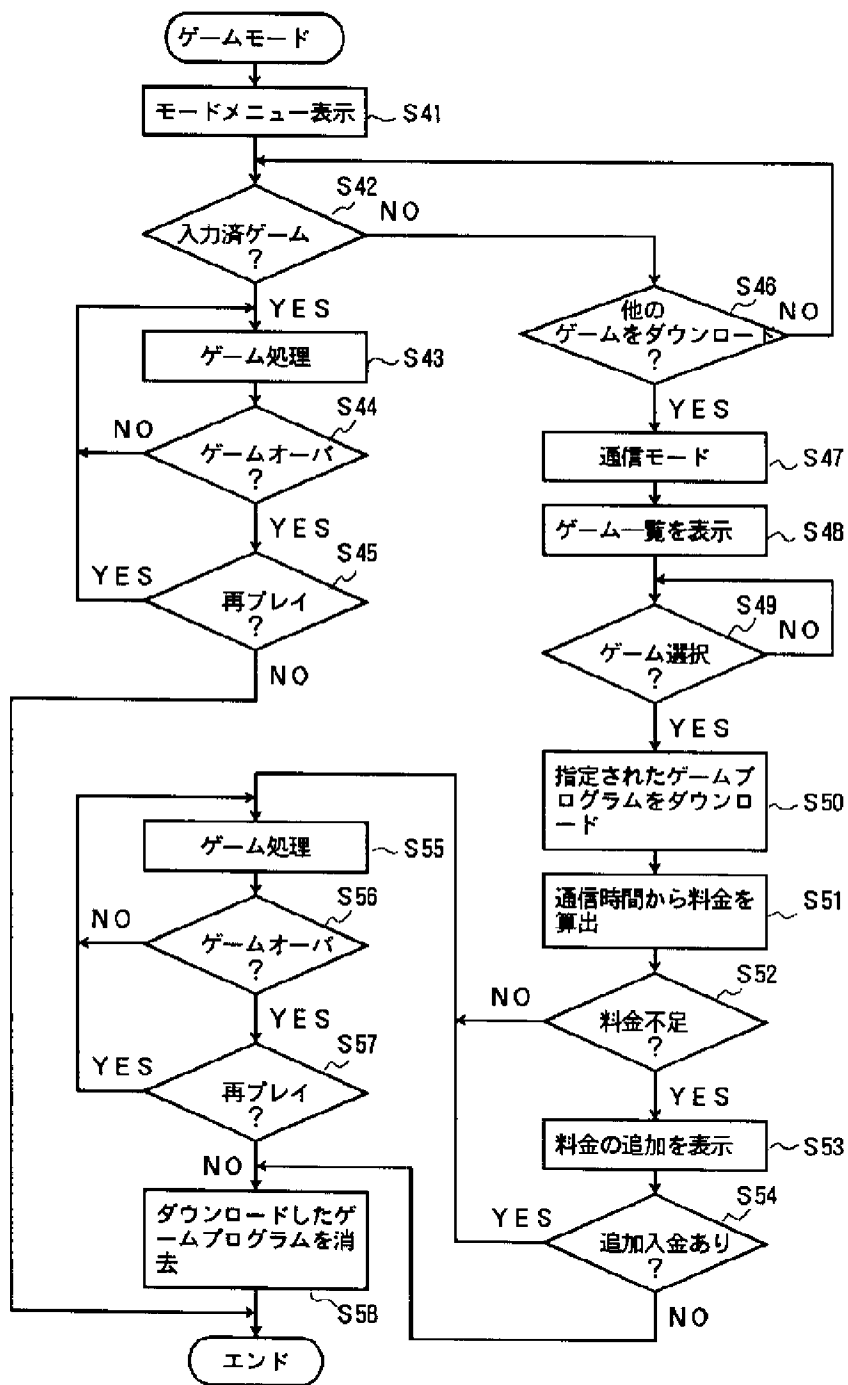
[Drawing 3]



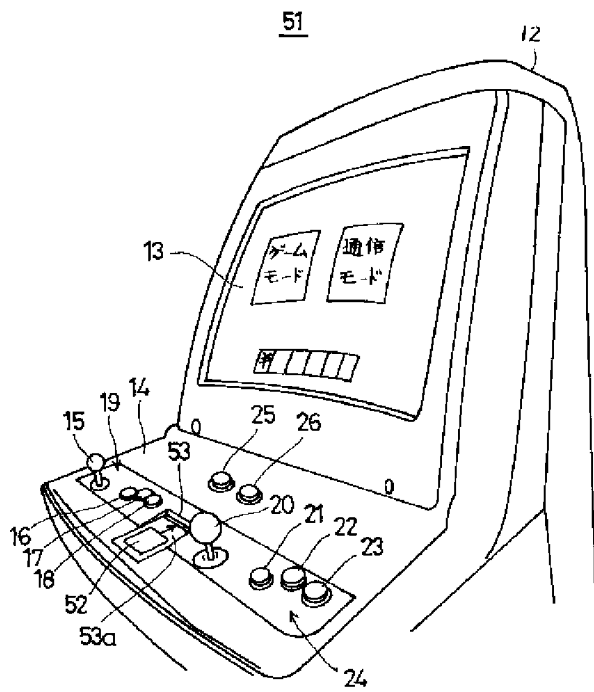
[Drawing 6]



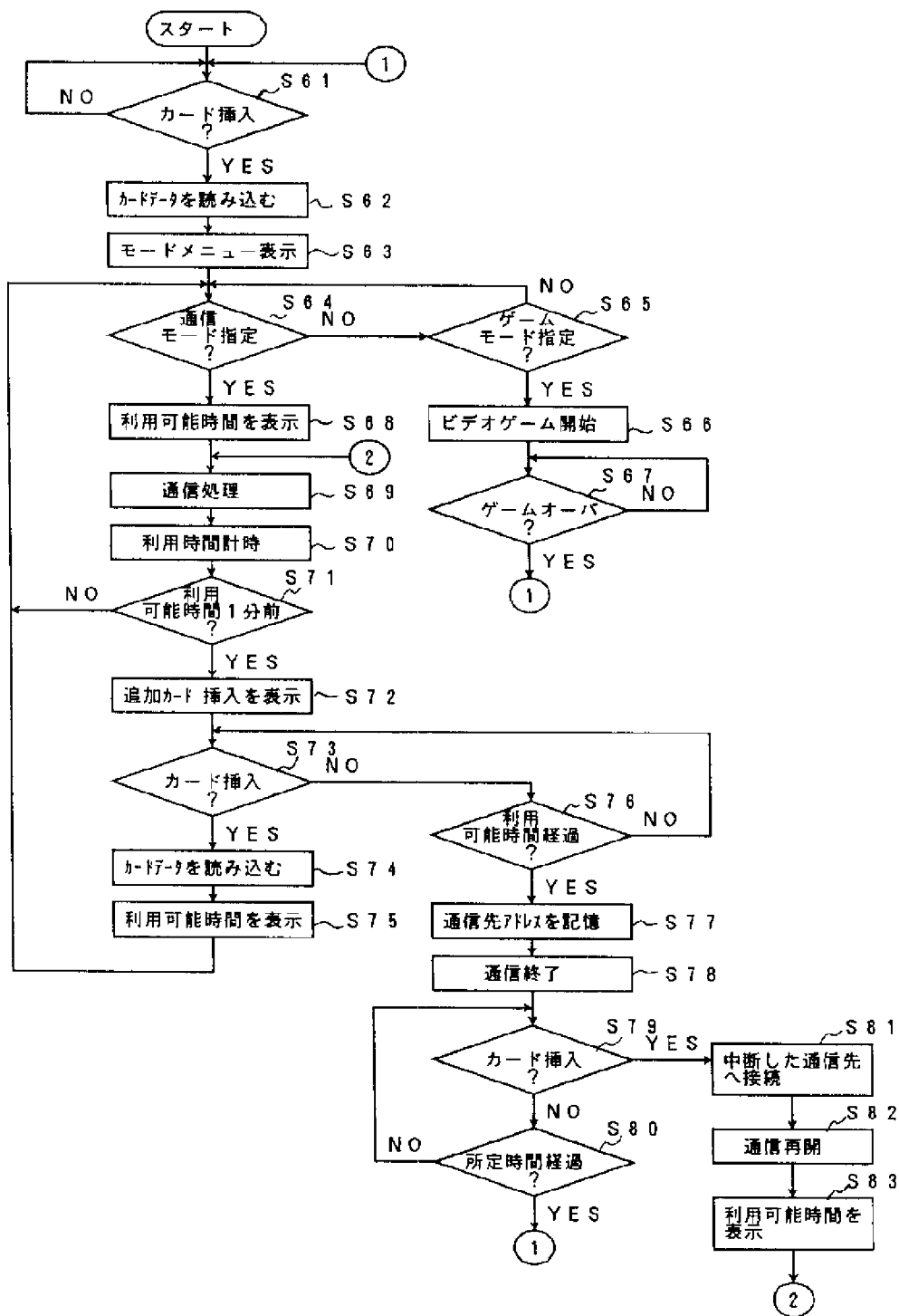
[Drawing 7]



[Drawing 8]



[Drawing 9]



[Translation done.]